CabPack v1.4

Written 1999 by Lars Hederer.

• What is it? •

CabPack is a compression program with which you can create cabinet (.CAB) files.

When Windows 95 came out, Microsoft introduced a new compression scheme for their distribution media: the cabinet files. I was curious: What is the compression rate of the CAB format, in comparison to other archivers? So I extracted the files from a cabinet file and re-compressed them using various popular compressors, including ZIP, ARJ and RAR, and even with maximum compression enabled, I was unable to achieve the same tight compression the original .CAB file had.

So I began searching for a utility that allowed me to create my own cabinet files. For over a year I was unable to find anything. Then, in 1997, Microsoft put up a CAB-SDK (cabinet software development kit) on their website. The CAB tools contained therein, however, were all command-line driven, and if you wanted to create .CAB files that spanned multiple disks, you had to create a so-called "directive file" which contained all necessary information and had to be passed over to the CAB compressor.

This was why I decided to write CabPack. It started out as a console application but has now developed into a true 32bit GUI program which makes it very easy for the user to create cabinet files. With just a few mouse clicks you specify which files to compress, which compression method to use, where the output files should go and whether or not the cabinet files should span multiple disks. CabPack is able to store subdirectories, and depending on the platform you wish to extract the cabinets on, it can create .CAB files that contain long filenames or store these long filenames in the 8.3 format.

• Version history •

1.0 (01/11/98)
Initial release (DOS console); no long file name support :-(

1.1 (02/05/98)
Added long file name support and, therefore, added a 32bit extractor to the archive. Minor bug fixes in filename handling.

1.2 (02/19/98)

Improved LFN support, revised documentation, bug fixes.

1.3 (07/11/98)
CabPack is now GUI and 32bit :-)

1.4 (06/26/99)
Added the ability to create spanned .CAB files directly on disk drives.

• Disclaimer •

CabPack is freeware. Please pass it to anyone who you think may find it useful.

MakeCAB and Extract are © Microsoft.

I have carefully tested CabPack on different computers. However, I take no responsibility for what might happen to your system upon use of this program.

• System requirements •

I have tested CabPack under Windows 95, 98, and NT 4.

• Installation •

This archive should contain the following files:

CABPACK.EXE	The main program.
CABPACK.DOC	The file you're just reading.
CABPACKD.EXE	The main program in German.
CABPACKD.DOC	Documentation in German.
EXTRAC32.EXE	32bit extraction program.
EXTRACT.EXE	16bit extraction program.
MAKECAB.OVL	The MakeCAB engine.

Simply unzip them into any dir and run cabpack.exe.

• Using CabPack •

I think that the new GUI CabPack is very self-explanatory. If you move the mouse cursor over various items in the CabPack window, you will see a description at the bottom. Here I will give you a brief summary of what you need to do in order to compress files with CabPack, and what the different options are.

First you choose the **source directory or file**: this may be a directory containing files, or a single file you wish to compress. Options are to exclude path information from the specified source, and to recurse subdirectories if source is a directory.

Next you choose the **destination directory** in which your .CAB file(s) will be placed. You may also create a new directory by using the directory browser.

In the **CompressionType** box you may choose between MSZIP or LZX. While MSZIP is faster, LZX provides significantly better compression and should be the recommended option. If you use LZX, you must also specify the **CompressionMemory**: higher numbers provide better compression, but slow the compression process down.

The **Directory from where to copy setup files** field allows you to specify a directory that contains files to be copied to the destination directory, or to disk 1 if you enable disk spanning (see below). May be a setup program, for example.

The **MaxDiskSize** field is used to enable/disable disk spanning. You may simply use any of the pre-defined values for this field by clicking the appropriate option (for example, to create cabinets that fit on 1.44 MB floppy disks, click the "1.44 MB Floppy" option), or enter a user-defined value in the field. Then, to compress directly to a disk drive, simply specify the root directory of that drive as a destination (for example, "A:\“). CabPack will prompt you to insert the appropriate disks during compression. In case you enable disk spanning and specify a hard drive directory instead of a disk drive, the resulting cabinets are placed in directories named DISK1, DISK2, DISK3, ..., DISKN under the destination directory.

If you specified a setup files directory, files in there will be copied to disk 1, and the first cabinet file will automatically be smaller to provide space on the disk for these files. Note that if you compress directly to a disk drive, the overall size of the files in this directory must be LOWER than the MaxDiskSize, or else CabPack will fail.

If you enter 0 or choose "Unlimited", disk spanning will be disabled, and CabPack will create one single .CAB file.

If you specify a number for MaxDiskSize, you must also specify the **ClusterSize** of your disk media. 1.44 MB floppies, for example, have a cluster size of 512 bytes. If you have media with other cluster sizes you can specify this here; it is used by MakeCAB to round up the sizes of files and cabinets to a cluster boundary, so it can determine when to switch to the next disk.

In the **CabinetNameTemplate** field you enter a name for your resulting .CAB file(s). If disk spanning is enabled, you should insert * somewhere in the filename; this will be replaced with the actual disk number. Example: If you enter "Disk * of the backup.cab" in the field,

MakeCAB would create files named "Disk 1 of the backup.cab", "Disk 2 of the backup.cab" and so on.

The **DiskLabelTemplate** needs to be specified if disk spanning is enabled. This description of your cabinet set will be stored inside each .CAB file of the set and is shown to the user during extraction ("Please insert the disk labeled '...' "). You should also make use of the asterisk (*) as a placeholder for the disk number here.

If you want to create cabinets for a 16bit platform, like MS-DOS, and the files and/or directories you wish to compress contain long filenames, you must click the **16bit extractor** option. If you don't, any attempt to extract these files using a 16bit extractor will most likely result in invalid directory entries.

• Extracting cabinets •

I have included the Microsoft 16bit and 32bit command line extractor in this package. Other cabinet extractors can be found on the Web; see "Other CAB programs" later in this document.

• Self-extracting cabinets •

You can create SFX cabinets by simply concatenating a cabinet file to EXTRACT.EXE (or EXTRAC32.EXE).

For example, if you've built TEST.CAB and want to convert it to a 32bit EXE file, you can do the following:
- Copy the file EXTRAC32.EXE to the directory where TEST.CAB resides.
- Enter a DOS prompt and change to the appropriate directory.
- Type **copy /b extrac32.exe+test.cab test.exe** and you have the self-extracting archive TEST.EXE.

This also works for spanned CABs: in this case you just have to concatenate the first file of the set to EXTRACT.EXE.

• Other CAB programs •

Those of you who want more information on the cabinet technology should download and install the **Cabinet Software Development Kit** from Microsoft, which can be found at http://msdn.microsoft.com/workshop/management/cab/cabdl.asp.

A useful tool called **Iexpress** can be found in Microsoft's Internet Explorer 4 Administration Kit: with Iexpress you can create self-extracting Windows CABs. If you have an IE4 CD, you probably have the Kit already, else go to

www.ftpsearch.com and search for "ieak4.cab". However, with this you are unable to create disk-spanned self-extractors.

If you want to use a GUI program to extract cabinet files, you should have a look at the Microsoft PowerToys utility **CabView**. This integrates with the Windows Explorer and allows viewing and extraction of cabinet files directly from there. Currently, the CABVIEW.DLL file from the PowerToys does not support the LZX format; Windows 98, however, has CabView built-in and contains an updated version of this file.

In my opinion the most comprehensive list of freeware and shareware cabinet programs can be found at http://pages.vossnet.de/xixxa/cabfree.htm and http://pages.vossnet.de/xixxa/cabshare.htm. These pages are in German, however.

• Comments, questions, bug reports? •

Please don't hesitate to email me!

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